

ANNOUNCEMENT OF OPPORTUNITY

NASA RESEARCH INSTRUMENT AT THE KECK OBSERVATORY

NOTICE OF INTENT DUE: PROPOSALS DUE:

April 4, 1997 June 16, 1997

NASA Research Instrument at the Keck Observatory

NASA Announcement of Opportunity Soliciting Proposals for the Office of Space Science

Letters of Intent due: April 4, 1997 Proposals due June 16, 1997

> AO 97-OSS-02 Issued: March 14, 1997

Office of Space Science National Aeronautics and Space Administration Washington, DC 20546-0001

NASA ANNOUNCEMENT OF OPPORTUNITY 97-OSS-02

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NASA RESEARCH INSTRUMENT AT THE KECK OBSERVATORY

The National Aeronautics and Space Administration is pleased to release an Announcement of Opportunity (AO) for a scientific investigation at the W. M. Keck Observatory (WMKO) that leads to publication of results in peer reviewed journals. An integral part of this research program is the design and construction of a unique instrument for use at WMKO. The two 10-m telescopes of the WMKO are located near the summit of Mauna Kea, a 4205 meter high mountain in the state of Hawaii on the island of Hawaii. WMKO Headquarters is located in the town of Waimea, at an elevation of 800 meters, 77 km by road from the telescopes. The California Association for Research in Astronomy (CARA) operates the facility. NASA is a 1/6 partner in the Keck Observatory and, therefore, has access to 1/6 of the available observing time (approximately 90 nights per year). The NASA fraction of observing time supports programs of interest to NASA for exploration of phenomena within our and other solar systems, especially those that deal with the discovery and characterization of planetary systems and investigation of their origin and evolution.

The Keck II telescope is the centerpiece of this effort, and this AO specifically applies to programs that propose use of the eight foci available at the Cassegrain or Nasmyth locations of Keck II. Proposals that include new instruments or which will provide scientifically valid, technical enhancements to the existing array of instruments are welcome. Any instrumentation developed in response to this AO will become part of the permanent infrastructure at WMKO.

NASA wishes to select the highest quality investigation; therefore, this solicitation is a two-step process. Proposers are asked to propose for a four-month feasibility study with an option to implement the full scientific investigation. The period of performance for the option is not to exceed three years. In step 1, NASA will select, principally on scientific and technical merit, up to six proposals to conduct four-month feasibility studies of technical, scientific, outreach, cost, and implementation plans. The total amount available for these feasibility studies, \$500,000, will be split among the selected proposals. In step 2, NASA will evaluate the results of these studies for programmatic merit and to determine which project best meets the scientific goals for this AO. If, after evaluation, NASA deems there is an appropriate project, NASA will exercise the option for implementation. There is \$4.5M available for this option.

Participation in these programs is open to all categories of organizations, both domestic and foreign, industry, educational institutions, other nonprofit organizations, NASA centers, and other Government agencies. Minority and disadvantaged institutions are particularly encouraged to respond to this AO. Selection for funding will be based on (i) science and technical merit, (ii) relevance to NASA programs in space science, and (iii) cost.

The appendices to this Announcement include further details relevant to this program. On its release date NASA will provide the complete text of the AO, Appendices, and the Proposal Information Package (PIP) through the World Wide Web. The Internet URL address is:

http://www.hq.nasa.gov/office/oss/

Open the link to "Research Opportunities." Obtain paper copies of the AO, appendices, and PIP from the NASA Headquarters Program Scientist (listed below) only if the prospective proposer's institution lacks access to the World Wide Web.

Appendix A provides programmatic information and provides amendatory guidance to Appendix B, applicable only to this AO. Appendix B contains General Instructions and Provisions. Appendix C contains standard forms for proposals submitted to this AO. The PIP contains information on the Keck interfaces and current instruments.

The following items apply only to this Announcement:

Identifier: AO 97-OSS-02

Submit Notice of Intent by: April 4, 1997

by mail to: Keck Instrument Review Panel

Lunar and Planetary Institute (LPI)

3600 Bay Area Boulevard

Houston, TX 77058

or fax Facsimile: (713) 486-2160 or E-mail E-mail: cloud@lpi.jsc.nasa.gov

Submit Proposals By: June 16, 1997

Submit proposal to: Keck Instrument Review Panel

Lunar and Planetary Institute (LPI)

Proposals may not be 3600 Bay Area Boulevard

submitted by facsimile or Houston, TX 77058

E-mail Phone: (713) 486-2166

Number of proposals required: signed original plus 20 copies

Selecting Official: Associate Administrator

Office of Space Science

Anticipated date of selection: September 1997

Obtain Appendices from: http://www.hq.nasa.gov/office/oss/

select "Research Opportunities"

Obtain additional information from: Dr. Sethanne Howard

Research Program Management Division

Code SR

NASA Headquarters

Washington, DC 20546-0001 USA E-mail: sethanne.howard@hq.nasa.gov

Telephone: (202) 358-0359

Your interest and cooperation in participating in this effort are appreciated.

Jurgen H. Rahe Edward J. Weiler

Science Program Director Science Program Director

Solar System Exploration Astronomical Search for Origins and Planetary Systems

Wesley T. Huntress Associate Administrator for Space Science

DESCRIPTION OF OPPORTUNITY

1.0 PROGRAM DESCRIPTION AND OBJECTIVES

The National Aeronautics and Space Administration (NASA) announces the opportunity to propose a scientific investigation that includes the development of a NASA instrument for use at the W. M. Keck Observatory (WMKO) that meets the goals of the Office of Space Science's (OSS) ground-based observational program. The scientific goals of this program are generally contained in *Space Science for the 21st Century: The Space Science Strategic Plan*, dated August 1995, and are supported by the report of the Solar System Exploration Subcommittee, titled *Solar System Exploration 1995-2000*, the report of the National Research Council's Committee on Planetary and Lunar Exploration, titled *An Integrated Strategy for the Planetary Sciences 1995-2010*, and the report *Exploration of Neighboring Planetary Systems (ExNPS)*, dated October 1995. These reports are on the WWW at URL's:

http://www.hq.nasa.gov/office/oss/

http://www2.nas.edu/wwwcat/PhysicalSciences.html and

http://techinfo.jpl.nasa.gov/www/exnps/homepage.html, respectively.

OSS supports those ground-based telescopic observations that contribute to the understanding of the general properties and evolution of the planets and their satellites, asteroids, and comets, as well as the origins of planetary systems. These include observations and analysis made over a wide range of wavelengths from ultraviolet to radio. The data obtained must be useful either for basic research in support of general OSS objectives that cannot be met by current spacecraft missions or for direct support of specific flight missions. Current missions relevant to this AO are Galileo, Mars Pathfinder, Mars Global Surveyor, and the Near Earth Asteroid Rendezvous (NEAR). Missions in development are Cassini (estimated launch 10/97), the Lunar Prospector (estimated launch 10/97), and Stardust (estimated launch 10/99). Information on all these missions can be found through the OSS Home Page: http://www.hq.nasa.gov/office/oss.

NASA is a 1/6 partner in the WMKO at Mauna Kea, Hawaii, and, therefore, has access to 1/6 of the available observing time (approximately 90 nights per year). The NASA fraction of observing time supports programs of interest to NASA for exploration of phenomena within our (and other) solar system(s), dealing with the discovery and characterization of planetary systems and investigation of their origin and evolution.

The general objectives for the OSS ground-based telescopic program are

- the study of phenomena in the Solar System,
- the detection of planets orbiting other stars,
- the study of diffuse circumstellar and protoplanetary disks, and
- the provision of data for future space-based missions.

2. DETAILS OF OPPORTUNITY

2.1 Research Opportunity

Proposals are sought to conduct a scientific investigation at WMKO that leads to publication of results in peer reviewed journals. An integral part of this research program is the design and construction of a new instrument for use at WMKO. The instrument will reside at WMKO as a permanent part of the facility, and title to the instrument will reside with NASA.

The program is expected to provide data and analyses that fall within the scope and objectives of the OSS ground-based telescope program. Because the Keck Telescopes are ideally situated for infrared work, this AO especially solicits investigations that optimize for infrared and/or visible wavelength ranges. New ideas and innovative approaches are welcomed. In addition, this AO specifically applies to investigations that plan to use one of the eight foci available at the Cassegrain or Nasmyth locations on Keck II. Proposals that plan to provide a new instrument or include scientifically valid, technical enhancements to the existing array of instruments are welcome. Proposals involving both Keck Telescopes simultaneously are not included in the scope of this AO. See the Proposal Information Package (PIP) for descriptions of the telescopes, interfaces, and current instruments. The PIP is available from the site

http://www.hq.nasa.gov/office/oss/

During development, the successful proposer is expected to work closely with the WMKO staff. Proposers need to consider how the following items will affect their proposed program: 1) the cleanliness of the Keck mirrors; 2) the existence of the adaptive optics facility; 3) the segmented nature of the Keck primary mirror and the hexagonal pupil it presents to an instrument; 4) the design and function of the telescope pointing and tracking; 5) "stacked" image quality; and 6) the sky background levels on Mauna Kea.

The PI selected through this AO will retain preferential access to the instrument for the duration of the contract option. This option, including instrument development time, may not exceed three years. NASA intends that the instrument provided though this AO will also be available during that initial time for use as a facility by observers whose observational programs are approved by the appropriate Telescope Allocation Committee (TAC); therefore, inherent in this AO is the requirement for any proposed instrument to be user friendly and well documented. At the conclusion of the initial contract, the instrument will remain at WKMO for use by those observers whose observational programs are approved by the appropriate TAC.

Data obtained with the instrument developed under this AO remain the property of NASA in accordance with "Rights in Data - General Clause", FAR 52.227-14.

2.2 Proposal Selection Process

NASA wishes to select the highest quality research investigation; therefore, this procurement will be a two step process:

• In step 1, NASA will select up to six proposals through this AO, each to conduct their respective four-month feasibility studies of technical, scientific, outreach, cost, and implementation plans. The total amount available for these feasibility studies, \$500,000, will be split among the selected proposals.

• In step 2, NASA will evaluate the results of these studies for details of the implementation, namely, any modifications of the scientific objectives, the proposed cost to NASA, design details of the instrument, and plans for operation and management. To ensure the proposed investigation addresses the unique configuration at the Keck Telescopes, the WMKO engineers will provide to NASA information on technical issues. If, after evaluation, NASA deems there is an appropriate project that meets programmatic goals, NASA will exercise the option for implementation. There is \$4.5M available for this option.

The proposers to this AO are expected to respond for the complete investigation including project initiation, feasibility study, and option for design, construction, installation, and use. Proposals that describe only portions of an investigation or do not address all phases of the project will be returned to the proposer. The Selecting Official will be the Associate Administrator for Space Science.

Schedule

The schedule for the release, due date, selection, and start of funding of proposals for this AO is as follows:

March 14, 1997
April 04, 1997
June 16, 1997
September 1997
October 1997
February 1998
Release of the AO
Notice of Intent due
Proposals due
Target date for announcement of selection
Target date for start of feasibility studies
Target date for downselect

2.3 Education and Public Outreach

Education and public outreach are expected to be part of each NASA flight program and research discipline. NASA strongly encourages researchers not only to engage actively in education and public outreach, but also to include such activities in their proposals. The proposal section for Education Outreach follows the main proposal's Project Description. The funding dedicated to education and public outreach is expected not to exceed 1-2% of the project's budget. Further details on the NASA OSS Education Policy may be found in "Partners in Education: A Strategy for Integrating Education and Public Outreach Into NASA's Space Science Programs," which describes the Office of Space Science's approach for making education at all levels and the enhancement of the public understanding of science integral parts of space science research activities. The document "Implementing the Office of Space Science (OSS) Education/Public Outreach Strategy" describes the NASA OSS policy for implementation. Both documents may be obtained from the WWW at:

http://www.hq.nasa.gov/office/oss/

2.4 Technology

NASA seeks to infuse new technologies into its programs and to strengthen the mechanisms by which it transfers such technologies to the private sector, including the nonaerospace sector. The means by which NASA's Office of Space Science plans to implement new technology is described in the Office of Space Science Integrated Technology Strategy available at:

http://www.hq.nasa.gov/office/oss/

The NASA Keck Instrument represents an opportunity for NASA to develop and test new technologies and applications. Investigations dependent on new technology will not be penalized for risk if adequate backup plans are described to ensure success of the investigation.

2.5 Small Disadvantaged Business and Minority Institutions

The PI and team members shall agree to use their best efforts to assist NASA in achieving its goal for the participation of small disadvantaged businesses, women-owned small businesses, Historically Black Colleges and Universities, and other Minority Educational Institutions in NASA procurements. Investment in these organizations reflects NASA's commitment to increase the participation of minority concerns in the aerospace community and is to be viewed as an investment in the future. Offerors, other than small business concerns, are also advised that contracts resulting from this AO will be required to contain a subcontracting plan that includes goals for subcontracting with small, small disadvantaged, and women-owned small business concerns.

3. 0 PROPOSAL PREPARATION AND SUBMISSION

3.1 Notice of Intent to Propose

This AO strongly encourages the submission of a Notice of Intent (NOI) to propose. Submission of a NOI does not commit the sender to submit a proposal, nor are Co-Investigator (Co-I) commitments binding. To the extent the following information is known by the due date, the Notice of Intent needs to:

- reference this AO by its alpha-numeric identifier;
- contain the names, addresses, telephone numbers, fax, and E-mail addresses of the Principal Investigator and anticipated Co-Investigators;
- include a descriptive title of the expected investigation;
- describe briefly the proposed investigation, its scientific objectives and the instrument proposed to carry out the scientific investigation; and
- identify new technologies that may be used.

Material in a Notice of Intent is for NASA planning purposes only, is confidential, and is not binding on the submitter. Submit the NOI by postal or express mail, facsimile or electronic mail (see letter of solicitation). Do not, however, send duplicates (i.e., facsimile followed by hard copy). The proposer will receive an acknowledgment of receipt by mail.

3.2 General Provisions

General NASA guidance for proposals to this AO is given in Appendix B, which is considered binding unless specifically amended in Appendix A. A uniform proposal format is required from all proposers to aid in proposal evaluation. The required proposal format and contents are summarized below. Failure to follow this outline may result in reduced ratings during the evaluation process and could lead to rejection of the proposal without review.

For selected proposals, NASA plans to enter information contained in the Cover Page and Abstract into electronically accessible data bases accessible through its WWW homepages for

the information of future proposers for this and other related programs, and all other interested parties. The proposal titles, names of Principal Investigators, Institutions, and Abstracts of all selected abstracts should not contain any proprietary information which would preclude its release without restriction.

To provide a fair review, the reviewer needs a clear description of the proposed work. Reviewers may associate the quality of the science with the quality of the text and the clarity of the description. It is in the proposer's best interest to ensure the proposal is as readable and as responsive to the AO as possible.

For proposals in response to AO's, NASA recognizes only <u>one</u> Principal Investigator (PI) for each proposal. Other investigators are designated Co-Investigators (Co-I's), even if their proposal and science responsibilities are comparable to that of the PI.

If substantial collaborations with other institutions are involved, submit letters of endorsement by the responsible officials from those institutions. Each endorsement letter needs to indicate agreement with the nature of the collaboration detailed in the proposal, which must be identified by title and date of submission.

3.3 Proposal Format

Proposals must be typewritten, in English, and written as concisely as possible. Use 8.5" x 11" sized paper for all sections of the proposal. The paper size A4 is also acceptable. Use font point size 12 or larger with 1 inch margins with a maximum of 55 lines per page. Each side of a sheet containing text or figures is considered a page. Double-sided printing is encouraged. Submit proposals only on plain, white paper. This precludes the use of cardboard stock, foldouts, plastic covers, spiral binders, colored paper, colored illustrations (unless critical to the proposer's data), etc. Bind sections of proposals to permit easy disassembly. Do not send reprints or preprints of articles, nor audio or visual recordings. Proposals must use metric units.

Every proposal must have the following elements.

- <u>Cover Sheet</u> All proposals must use the Cover Page in Appendix C. The proposer's sponsoring institution must endorse the proposal. The original proposal must contain the original (in ink) signatures of the PI and the Institutional Authorizing Official. Copies or fax are not accepted in lieu of original signatures.
- <u>Abstract</u> All proposals must use the Abstract form in Appendix C. The abstract is limited to one page. The abstract is a self-contained description of the activity that would result if the proposal were accepted. Include a statement of objectives, methods, and significance.
- Scientific and Technical Section The scientific/technical section is the heart of the proposal and is a clear, concise description of the proposed work, goals, and methodology. Neither a World Wide Web site nor other electronic reference to material outside the proposal may be used to comprise any part of the proposal. The scientific and technical section of the proposal is limited to 20 pages in length including references. Suggested topics for this section are:
 - the science goals of the investigation that includes a description of how this instrument will contribute to the long term needs of the scientific community

- at the WMKO and how it relates to the objectives of the OSS ground-based telescope program;
- a preliminary description of the proposed instrument and suitability of the proposer's facility for developing this project;
- a description of how the proposed instrument is crucial to the success of the proposed science investigation;
- the technical capabilities of the instrument and its suitability for use as a NASA research facility instrument at WMKO;
- an outline of any advanced technology to be incorporated;
- a preliminary description of the interface of the proposed instrument with the telescope and requirements for instrument maintenance;
- a timeline for the feasibility study;
- a timeline for design, construction, software development, test, installation, documentation, calibration, implementation, and use of the proposed instrument; and
- the methodology of data acquisition, storage, reduction, analysis, archiving, and publication.
- <u>Education and Public Outreach Plan</u> The description of proposed educational outreach efforts is limited to 3 pages.
- <u>Curriculum Vitae</u> <u>Include</u> a brief biographical sketch, along with a list of relevant scientific publications covering the past 5 years, for the PI. The biographical sketch and publications list may not exceed two pages. The proposer may include a CV for each Co-I, each limited to one page.
- Cost Section Use the forms in Appendix C for the budget summary forms for the four month feasibility study with option to continue. The budget for the feasibility study may extend (and not exceed) four months. Sponsoring institutions may supplement this form with their own budget forms. There is no page limit for this section. Include a first-order estimated cost of the investigation that encompasses all proposed activities should NASA exercise the option to implement. Outline the methodology used to estimate the cost. The option may cover up to a three-year period (assuming this option of the proposal is exercised for Step II). The budget breakdown requested in these forms will be used by the Government to evaluate costs as to reasonableness, allowability, and allocability. The offeror shall specify the basis rate and amount of fee, if any, for the contract. If there are collaborations with Co-I's who are at institutions different from that of the PI, and if those Co-I's anticipate support, list the budget details and total for each participating institution.
- <u>Facilities Description</u> Up to two pages may be used for a description of available facilities and major equipment suited to the proposed project. Also describe any needed additional major equipment. Identify any Government owned facilities.

• <u>Certification Forms</u> - Use the forms in Appendix C. Submit these signed forms only with the original signed copy of the proposal. Government Institutions do not need to submit these forms.

Certification Regarding Debarment, Suspension, and Other Responsibility Matters; Certification Regarding Drug Free Workplace; and

Certification Regarding Lobbying - required only for proposals requesting a cumulative total of \$100,000 or more.

• <u>Management Plan</u> - This section, not to exceed five pages, outlines the specific responsibilities of the PI and other members of the research team. When multiple institutions are involved, specify the institutional responsibilities and/or other terms of agreement necessary to achieve the objectives of the program.

3.4 Guidelines for Non-U.S. Proposals

NASA welcomes the participation of non-U.S. investigators in its programs. NASA will, however, operate on a no exchange of funds basis with foreign investigators selected as a result of this competition. Foreign investigators may play Co-Investigator roles in proposals submitted by U.S. Principal Investigators or they may propose as Principal Investigators in their own right with or without U.S. Co-I's. Proposals from non-U.S. entities do <u>not</u> include a cost plan. Non-U.S. proposals and U.S. proposals that include non-U.S. participation must be endorsed by the pertinent Government agency or funding/sponsoring institution in the country from which the non-U.S. participation is proposed. This endorsement should indicate that the proposal merits careful consideration by NASA, and that, if the proposal is selected, sufficient funds will be made available to undertake the activity as proposed.

One copy of the documents should be sent to:

Shiron D. Gaines
Re: AO 97-OSS-02
International Science and Aeronautics Division
Code IS
NASA Headquarters
Washington, DC 20546-0001
USA

All proposals must be typewritten in English. All non-U.S. proposals will undergo the same evaluation and selection process as those that originate in the U.S. Non-U.S. proposals and U.S. proposals that include non-U.S. participation must follow all other guidelines and requirements described in this AO.

All proposals must be received on or before the established closing date; those received after the closing date will be treated in accordance with NASA's provisions for late proposals. Sponsoring non-U.S. agencies may, in exceptional situations, forward a proposal without endorsement to the above address, if review and endorsement are not possible before the announced closing date. In such cases, however, NASA's International Science and Aeronautics Division should be advised when a decision on endorsement can be expected.

Successful and unsuccessful proposers will be contacted directly by the NASA Program Office coordinating the AO. Copies of these notification letters will be sent to the sponsoring Government agency.

Should a non-U.S. proposal or a U.S. proposal with non-U.S. participation be selected, the NASA International Science and Aeronautics Division will arrange with the non-U.S. sponsoring agency for the proposed participation on a no exchange of funds basis, in which NASA and the non-U.S. sponsoring agency will each bear the cost of discharging its respective responsibilities. Depending on the nature and extent of the proposed cooperation, these arrangements will entail a letter of notification by NASA, and either an exchange of letters between NASA and the sponsoring Government agency or a Memorandum of Understanding (MOU) agreement.

4. PROPOSAL EVALUATION AND SELECTION

4.1 Evaluation Criteria for Research Effort

Proposals received in response to this AO will be evaluated in accordance with the provisions of Appendix I of the NASA Federal Acquisition Regulation (FAR) supplement, Part 1870. The NASA Research Program Management Division will screen all proposals to determine their suitability and responsiveness to the AO. Proposals that are not responsive to the AO will be handled as technical correspondence and returned to the proposer. Those proposals that are responsive to the AO will then undergo peer review for scientific, technical, management, and cost assessments against the following primary criteria (listed in descending priority order):

- 1. Overall scientific merit The objectives of the proposed research will be compared with the NASA scientific community's latest recommendations to determine the impact of the program and instrument on science as a whole and, in particular, on the U.S. planetary science program. An additional factor will be the uniqueness of the data and the proposed instrument. This will be measured by the extent to which they address areas of importance not addressed by other investigations or by the extent to which they propose new and innovative methods and approaches. The breadth of scientific investigations possible with the proposed instrument is of primary importance.
- 2. Feasibility of accomplishing the stated scientific goals This includes the probability of success of the proposed research, including consideration of whether the proposed approach is appropriate, sound, and likely to yield the desired results. This also includes an evaluation of the commitment of the institution(s) of the investigator(s) as measured by its (their) willingness to provide the support necessary to ensure the satisfactory completion of the investigation. The facilities must be adequate for the conduct of the proposed investigation. The soundness of the management plan is a factor.
- 3. Competence and relevant experience of the PI and any collaborators This criterion is an indication of the ability of the proposer to carry the investigation to a successful conclusion. Also considered is whether the proposer demonstrates in the proposal a firm grasp of the approach, analytical, and instrumental techniques required to perform the proposed project. The time and attention the PI plans to devote personally to the investigation is a factor.
- 4. <u>Relevance to NASA mission or objectives</u> The objectives of the proposal must be consistent with the scope and objectives of the OSS ground-based program as described in

Appendix A, Section 1.0. In addition, the suitability of the proposed instrument as a NASA facility class instrument at WMKO is a factor; this includes the willingness and ability of the PI to provide a facility class instrument that can be adapted to the unique instrument mounting and storage configuration of the Keck Telescopes and also be as user friendly as possible.

5. <u>Cost factors</u> - Cost factors include the consideration of the realism and reasonableness of the proposed cost, as well as any cost sharing or support by the institution(s) of the investigator(s) or by other sources to the proposed effort. The relationship of the proposed cost to available funds is an important programmatic factor.

4.1.1 Evaluation of Education/Outreach Components

Proposals will not be selected solely or primarily on the strength of their education/outreach components, although the quality of a proposed education/outreach effort could be used as an additional factor in selecting among otherwise equal proposals. Evaluation criteria for education components will include:

- The educational effectiveness and realism of program concept,
- the existence of effective partnerships with educational institutions and/or effective leveraging of existing resources and the prospects for the program to have a multiplier effect,
- the capability of proposers to carry out the proposed program,
- · the consistency with National educational reform efforts, and
- the consistency of budget with the guidelines given in the document *Implementing the OSS Education/Public Outreach Strategy*

4.2 Evaluation and Selection Procedures

The Program Scientist will screen all proposals to determine their responsiveness to the AO. Proposals that are responsive will be reviewed by the proposer's scientific or technological peers (with due regard to conflict of interest and protection of proposal information). External reviews will be by mail-in and/or panel reviews. External reviewers will be asked to consider primarily the science and technical merit of the proposals. Reviewers may also comment on such aspects of the proposals as uniqueness, capabilities of the proposer, institutional commitment to support, relevance to the program, and cost or cost realism. Following external review, an ad hoc subcommittee of the Space Science Steering Committee (SSSC) will categorize the proposals in accordance with regulations provided in the NASA FAR Part 1870. The subcommittee will base the categorization on the scientific peer review, the technical analysis, and the internal NASA cost and management review. The four categories are:

- 1. Category I -- is a well conceived and scientifically and technically sound investigation pertinent to the goals of this program. Category I investigations are recommended for acceptance.
- 2. Category II -- is a well conceived and scientifically or technically sound investigation recommended for acceptance, but at a lower priority than Category I.
- 3. Category III -- is a scientifically or technically sound investigation which requires further development.

4. Category IV -- is an investigation recommended for rejection for the particular opportunity under consideration, whatever the reason.

The Program Scientist will construct a selection recommendation that is scientifically and programmatically sound and affordable and then present this plan to the SSSC which reviews all the selection materials for completeness and adherence to NASA policies.. The SSSC then forwards these materials, along with its recommendation for selections, to the Associate Administrator for Space Science, who will make the final selections.

The proposal process depends upon the integrity of all involved. NASA takes seriously its responsibility for insuring that the details of the process are kept confidential and for protecting proposers against conflicts of interest in the review process. All non-Government reviewers are required to submit nondisclosure statements prior to their participation in the evaluation process. Although all proposers may request debriefings of the final evaluation regarding their proposals, reviewer identities and panel deliberations are held in confidence. Titles, institutions, and PI names of winning proposals are publicly released.

5. MAILING LIST

Community members can arrange to receive automatic notification of upcoming NASA Research Announcements and/or AO's by registering for the Office of Space Science (OSS) mailing list. Registration/update forms for the OSS mailing list can be obtained from the World Wide Web at

http://www.hq.nasa.gov/office/oss/research.htm or by using the form in Appendix C, or by contacting

Ms Joleen Bottalico Code SR Office of Space Science NASA Headquarters Washington DC 20546 joleen.bottalico@hq.nasa.gov